

What Is Claimed Is:

1. An electric operation apparatus, comprising:

a high frequency electric current generating circuit that generates a high frequency current for feeding the high frequency current to electrodes;

a direct current power supply circuit that supplies electric power to the high frequency generating circuit, the electric power supplied by said direct current power being variable;

a therapeutic condition monitoring circuit that monitors the therapeutic condition brought about by the high frequency current, on the basis of the high frequency current outputted by the high frequency electric current generating circuit; and

a supplied power setting circuit that supplies a setting signal for supplied electric power to the direct current power supply circuit, on the basis of the monitoring results obtained by the therapeutic condition monitoring circuit.

2. An output control method for an electric operation apparatus comprising a high frequency electric current generating circuit that generates a high frequency current for feeding the high frequency current to electrodes, and a direct current power supply circuit that supplies electric power to the high frequency electric current generating circuit, the direct current

power supply circuit providing a variable power supply,
the method comprising the steps of:

(a) monitoring the therapeutic condition brought about by the high frequency current on the basis of the high frequency current outputted by the high frequency electric current generating circuit; and

(b) supplying a setting signal for supplied power to the direct current power supply circuit on the basis of the monitoring results.

3. The electric operation apparatus of claim 1, wherein the therapeutic condition monitoring circuit evaluates the therapeutic condition by comparing the current high frequency electric current value with a predetermined threshold value.

4. The electric operation apparatus of claim 1, wherein the supplied power setting circuit compares the high frequency current with a predetermined target value and modifies the setting signal such that the supplied power is reduced to a prescribed level when it is determined based on the comparison results that the coagulation treatment is completed.

5. The electric operation apparatus of claim 4, wherein the target value is established based on the maximum high frequency current value.

6. The electric operation apparatus of claim 1, wherein the therapeutic condition monitoring circuit evaluates the therapeutic condition by also using the

thickness of a subject's tissue between at least two electrodes for transmitting the high frequency current to the tissue.

7. The electric operation apparatus of claim 6, wherein the therapeutic condition monitoring circuit evaluates the therapeutic condition by comparing the impedance value of the subject being treated with a threshold value determined based on the thickness value.

8. The electric operation apparatus of claim 7, wherein the threshold value is determined based on the minimum of the impedance values measured.

9. The electric operation apparatus of claim 1, wherein the therapeutic condition monitoring circuit determines the therapeutic condition on the basis of the amount of time corresponding to variations in a sampled electric current value.

10. The electric operation apparatus of claim 1, wherein the therapeutic condition monitoring circuit determines the therapeutic condition on the basis of the time needed to achieve the maximum sampled electric current value.

11. The electric operation apparatus of claim 10, wherein the supplied power setting circuit compares the current high frequency electric current value with a threshold value predetermined based on the maximum value, and modifies the setting signal such that the supplied power is reduced on the basis of the comparison results.

12. The electric operation apparatus of claim 10, wherein the supplied power setting circuit determines whether the high frequency current reaches a predetermined threshold value after a time period predetermined to indicate that a blood coagulation treatment has been completed, and modifies the setting signal such that the supplied power is reduced if it is confirmed that coagulation has indeed occurred.

13. The electric operation apparatus of claim 1, wherein the therapeutic condition monitoring circuit determines the therapeutic condition on the basis of the amount of time corresponding to variations in the sampled impedance value of a subject being treated.

14. The electric operation apparatus of claim 1, wherein the therapeutic condition monitoring circuit determines the therapeutic condition on the basis of the time needed for the sampled impedance value of a subject being treated to reach a minimum value.

15. The electric operation apparatus of claim 14, wherein the supplied power setting circuit compares the current impedance with a threshold value established based on the minimum value thereof, and modifies the setting signal such that the supplied power is reduced on the basis of the comparison results.

16. The electric operation apparatus of claim 14, wherein the supplied power setting circuit determines whether the impedance value reaches a predetermined

threshold value after a time period predetermined to indicate that a blood coagulation treatment has been completed, and modifies the setting signal such that the supplied power is reduced if it is confirmed that coagulation has indeed occurred.